

## General Motors RWAL Update

1988 General Motors C/K 1500 - 3500 full size pickup trucks may repeatedly display a RWAL code 10. If unable to resolve this problem, the driver should be questioned on his braking habits. If the driver never releases the brake pedal from the time he starts his vehicle until he reaches over 40 mph, this can inadvertently set a code 10 (see Figure 1). This situation may sound rare but should be checked. When a condition exists where the RWAL is activating at low speeds during light or moderate braking, this can usually be traced to a defective speed sensor. The speed sensor signal is dropping out and the RWAL is detecting this as if the rear wheels were locking. The driver can feel this in the brake pedal as a pulsation, usually at speeds below 25 mph. Resistance should be checked at the speed sensor, across the two speed sensor terminals, with the harness disconnected from the sensor. The resistance must be between 900 and 2000 ohms, if not, the sensor must be replaced.

When checking for RWAL codes at the ALDL connector, a code 9 may be set if pins A and H are jumped for more than twenty seconds. This is because the RWAL diagnostic enable pin (H) is also the speed signal input to the RWAL. Grounding this pin when there is no code stored will cause the RWAL to interpret this as though there is a loss of the speed signal and set a code 9.

When troubleshooting RWAL systems and associated wiring a high impedance digital volt/ohm meter should be used. The use of a test light can cause misleading diagnostic results.

Always make sure that stored RWAL codes are cleared from the RWAL ECU after repairs are made by:

1. Disconnecting the 6 pin connector from the RWAL ECU or
2. Removing the stop/hazard fuse for 5 seconds or
3. By disconnecting the battery or
4. By replacing the RWAL ECU

NOTE: The key does not have to be on!

In some cases, technicians mistakenly think that a condition is solved by simply replacing the RWAL ECU. Remember all that has happened is that the codes are temporarily cleared. Other problem(s) can still exist that are responsible for setting codes.

### Code 10 Brake Warning Lamp Circuit

